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Technology Deployment

IDAHO NATIONAL ENGINEERING AND ENVIRONMENTAL LABORATORY

INEEL

HOME OF SCIENCE AND ENGINEERING SOLUTIONS

ResonantSonic™ Drill

Problem
INEEL's Radioactive Waste Management Complex (RWMC) Remediation project needed to insert closed-end steel probetubes into a subsurface disposal area without exposing workers to transuranic or hazardous waste.

Baseline Technology
Conventional mud rotary drill rig.

Innovative Technology
The ResonantSonic Drill rig vibrates the probetube to enhance the cutting action of the tip and minimize friction between the probetube and surrounding material.

Comparison
Unlike a conventional drill rig, the ResonantSonic Drill does not require the use of water or mud for probetube lubrication or removal of cuttings.

Benefits
This technology enabled the RWMC Remediation project to safely insert probetubes during geophysical logging operations at the Subsurface Disposal Area (pits 4, 9, 10).

Project: ID-ER-106
Radioactive Waste Management Complex Remediation
OST #55